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| 10/600,663 | 06/20/2003 | Antonio Gomez | 200309525-1 | 5679 |

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EXAMINER

LIANG, LEONARD S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2853 | |

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/600,663

Applicant(s)

GOMEZ ET AL.

Examiner

Leonard S. Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Claim Objections

Claim 9 is objected to because of the following informalities: The claim discloses "a gear train which couples the motor to said roller, said second roller..." But there are multiple rollers, so it's not clear which roller "said roller" is referring to. It will be construed that the claim should state "a gear train which couples the motor to said first roller, said second roller..." Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-15, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Therien (US Pat 6213583).

Therien discloses:

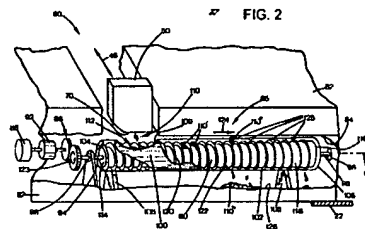
- {claim 1} A spittoon system for a printing mechanism having a first and a second printhead each with a substantially linear nozzle array oriented in a first direction, comprising: a frame; and a first roller mounted to the frame for rotation about an axis oriented in said first direction to receive ink spit only from said first printhead, and a second roller mounted to the frame for rotation about an axis oriented in said first direction to receive ink spit only from said second printhead

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(figure 2; column 6, lines 7-16; column 6, lines 47-49; Therien discloses

"Alternatively, three additional tapered screw spittoon systems may be installed in the service station 80 to individually service each of the color printheads..."

When this teaching is taken with the 4 inkjet pens 50-56 disclosed in figure 1, an invention with four roller screw spittoons are implied, each one receiving ink from one of the corresponding pens)



- {claim 4} further comprising a drive motor coupled to rotate the rollers (figure 2, reference 86)
- {claim 5} further comprising a gear train which couples the motor to the rollers (figure 2, reference 88)
- {claim 6} wherein the frame defines a waste ink reservoir located to receive waste ink from said rollers (figure 2, reference 82)
- {claim 7} further comprising a liner of an absorbent material located within said waste ink reservoir
- {claim 8} A spittoon system for a printing mechanism having first, second, third, and fourth printheads each with a substantially linear nozzle array oriented in a first direction, comprising: a frame; a first roller mounted to the frame for rotation about an axis oriented in said first direction to receive ink spit from said

first printhead; a second roller mounted to the frame for rotation and about a second axis oriented in said first direction to receive ink spit from said second printhead; a third roller mounted to the frame for rotation and about a third axis oriented in said first direction to receive ink spit from said third printhead; and a fourth roller mounted to the frame for rotation and about a fourth axis oriented in said first direction to receive ink spit from the fourth printhead (figure 2; column 6, lines 7-16; column 6, lines 47-49; Therien discloses "Alternatively, three additional tapered screw spittoon systems may be installed in the service station 80 to individually service each of the color printheads..." When this teaching is taken with the 4 inkjet pens 50-56 disclosed in figure 1, an invention with four roller screw spittoons are implied, each one receiving ink from one of the corresponding pens)

- {claim 9} a drive motor (figure 2, reference 86); a gear train which couples the motor to the first roller, the second roller, the third roller, and the fourth roller (figure 2, reference 88); wherein the frame defines a waste ink reservoir located to receive waste ink from said roller, said second roller, said third roller, and said fourth roller (figure 2, reference 82); plural scrapers mounted to said frame to engage said rollers and remove waste ink therefrom (column 6, lines 35-38); a liner of an absorbent material located within the waste ink reservoir (column 6, lines 45-46)
- {claim 10} A method of purging waste ink from a printhead of a printing mechanism having printheads for dispensing ink, comprising: positioning at least

some of said printheads over their own corresponding one of multiple rollers; and purging waste ink from said at least some of said printheads onto their own corresponding one of multiple rollers (figure 2; column 6, lines 7-16; column 6, lines 47-49; Therien discloses "Alternatively, three additional tapered screw spittoon systems may be installed in the service station 80 to individually service each of the color printheads..." When this teaching is taken with the 4 inkjet pens 50-56 disclosed in figure 1, an invention with four roller screw spittoons are implied, each one receiving ink from one of the corresponding pens)

- {claim 11} wherein said printheads have nozzles which dispense said ink, and said positioning comprises positioning said rollers a substantially uniform distance from said nozzles (figure 2, reference 50)
- {claim 12} wherein said printheads form a first contour and said positioning comprises positioning said rollers in a second contour similar to the first contour (naturally suggested in view of column 6, lines 47-51)
- {claim 15} A spittoon system for a printing mechanism having a first and a second printhead each with a substantially linear nozzle array oriented in a first direction, comprising: first means for receiving spit only from said first printhead; second means for receiving ink spit only from said second printhead; means for rotating each of said first and second means for receiving ink about an axis oriented in said first direction (figure 2; column 6, lines 7-16; column 6, lines 47-49; Therien discloses "Alternatively, three additional tapered screw spittoon systems may be installed in the service station 80 to individually service

each of the color printheads..." When this teaching is taken with the 4 inkjet pens 50-56 disclosed in figure 1, an invention with four roller screw spittoons are implied, each one receiving ink from one of the corresponding pens)

- {claim 17} further comprising means for storing waste ink (column 6, lines 30-55)
- {claim 18} further comprising means for scraping waste ink from said first and second means for receiving ink (column 6, lines 35-38)
- {claim 19} means for scraping waste ink from said first and second means for receiving ink; means for storing ink; means for absorbing waste ink in said means for storing; and wherein said means for rotating comprises a motor and means for transferring rotational motion from said motor to said first and second means for receiving ink (column 6, lines 30-67)
- {claim 20} A printing mechanism, comprising: a chassis defining a printzone and a servicing zone; a first printhead having a substantially linear nozzle array oriented in a first direction; a second printhead having a substantially linear nozzle array oriented in a first direction; a carriage which moves the printhead through the printzone and the servicing zone; a frame located in the servicing zone; a first roller mounted to the frame for rotation about an axis oriented in said first direction and located to receive ink spit only from said first printhead; and a second roller mounted to the frame for rotation about an axis oriented in said first direction and located to receive ink spit only from said second printhead (figure 2; column 6, lines 7-16; column 6, lines 47-49; Therien discloses "Alternatively,

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three additional tapered screw spittoon systems may be installed in the service station 80 to individually service each of the color printheads..." When this teaching is taken with the 4 inkjet pens 50-56 disclosed in figure 1, an invention with four roller screw spittoons are implied, each one receiving ink from one of the corresponding pens)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Therien (US Pat 6213583) in view of Leemhuis (US Pat 6733106).

Therien discloses, with respect to claims 13-14, a method (as applied to claim 12 above).

Therien differs from the claimed invention in that it does not disclose:

- {claim 13} the first contour comprises an arcuate shape
- {claim 14} the first contour comprises a semicircular shape

Leemhuis discloses:

- {claim 13} the first contour comprises an arcuate shape (figure 2, reference 42, 44, 46, 48)
- {claim 14} the first contour comprises a semicircular shape (figure 2, reference 42, 44, 46, 48)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Leemhuis into the invention of Therien. The motivation for the skilled artisan in doing so is to gain the benefit of a printhead contour alignment that can correspond to radial nature.

Response to Arguments

Applicant's arguments with respect to claims 1, 4-15, and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uchida et al (US Pat 6913339) discloses a head recovery device, head recovery method and ink jet recording apparatus.

Rhoads et al (US Pat 6913338) discloses a servicing system for an inkjet printhead.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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msl 11/28/05
MANISH S. SHAH
PRIMARY EXAMINER